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(71) Applicant (for all designated States except US): **PHOTO-BIOTICS LIMITED** [GB/GB]; 47 Prince's Gate, Exhibition Road, London SW7 2WA (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **YAHIOGLU,**

Gokhan [GB/GB]; 23 Macleod Road, London N21 1SW (GB). **MASON, Peter** [GB/GB]; 20 Mountbatten Close, Yate, Bristol BS17 5TD (GB).

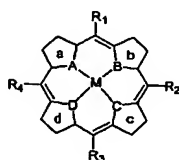
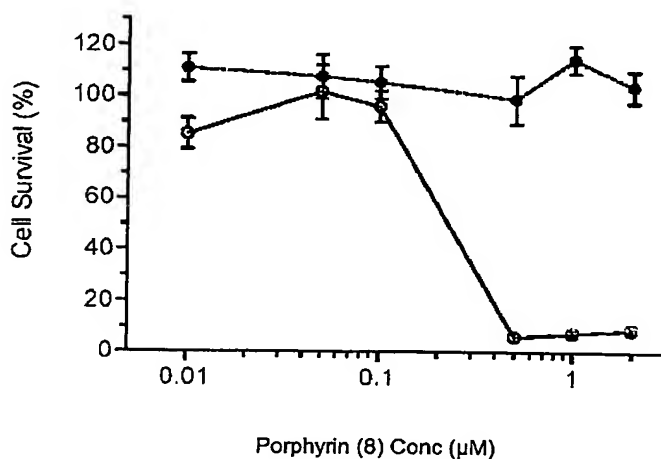
(74) Agent: **CLYDE-WATSON, Zoe**; D Young & Co, 21 New Fetter Lane, London EC4A 1DA (GB).

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(54) Title: **PORPHYRIN DERIVATIVES**



(57) Abstract: The present invention relates to a compound of formula (I) : Formula (I) wherein one or two of A, B, C and D are each independently selected from S, O, Se and Te, and the remainder are N; a, b, c and d are each independently substituted or unsubstituted 5-membered heterocyclic groups having the members necessary to complete a porphyrin, chlorin, bacteriochlorin or isobacteriochlorin nucleus in which one or two of the nitrogens are replaced by S, O, Se or Te; M is H or a metal; R₁, R₂, R₃ and R₄ are each independently selected from: H; alkyl; cycloalkyl; halogen; aryl or heteroaryl, each of which may be optionally substituted by one or more substituents selected from OH, CN, CF₃, alkyl, alkoxy, haloalkyl, halogen, an isothiocyanate group, a haloacetamide, maleimide, NH₂, NO₂, CONH₂, COOH, COO-alkyl, -OZ, -COOZ, a polyethylene glycol group, an alkyl sulfonate group, an alkyl-COOH group, a substituted or unsubstituted benzyl group, a sugar derivative, -C≡C-(CH₂)_pCO₂R₁₀, where R₁₀ is H or alkyl, and O(CH₂)_rCOR₁₁, where R₁₁ is OH, O-alkyl or -N-succinimide, and p and r are each independently an integer from 1

to 10; Formula (II) wherein W is an aryl, alkyl or heteroaryl group, each of which may be optionally substituted by one or more substituents listed above where Z is a silicon-containing protecting groups; and wherein when a, b, c and d have the members necessary to complete a porphyrin nucleus in which one or two of the nitrogens are replaced by S, O, Se or Te, (c) R₁, R₂ and R₃ are identical, and R₄ ≠ R₁, R₂, R₃; or (d) R₁=R₃; R₂=R₄, where R₁, R₃ ≠ R₂, R₄; or (d) R₂=R₃; R₁ ≠ R₄; and R₁, R₄ ≠ R₂, R₃.

WO 2004/076461 A1



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